	Application No.	Applicant(s)		
Notice of Allowability	40/004 040			
	10/804,846 Examiner	MA ET AL. Art Unit	<u> </u>	
	F			
	Frank M. Lawrence	1724		
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT F of the Office or upon petition by the applicant. See 37 CFR 1.31	S (OR REMAINS) CLOSED in b) or other appropriate commun RIGHTS. This application is su	this application. If not incl	luded ue course THIS	
1. $igtimes$ This communication is responsive to ${\it the amendment filed}$	1 August 21, 2006.			
2. X The allowed claim(s) is/are <u>1-36, 38, 39, 41, 45-48, 50, 5</u>	1 and 55-57 (renumbered as 1	<u>-48)</u> .		
<ul> <li>3. ☐ Acknowledgment is made of a claim for foreign priority u</li> <li>a) ☐ All b) ☐ Some* c) ☐ None of the:</li> <li>1. ☐ Certified copies of the priority documents have</li> </ul>	re been received.			
<ul> <li>2. ☐ Certified copies of the priority documents hav</li> <li>3. ☐ Copies of the certified copies of the priority do</li> </ul>			ication from the	
International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:				
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDON! THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	" of this communication to file a MENT of this application.	a reply complying with the	requirements	
4. A SUBSTITUTE OATH OR DECLARATION must be subn INFORMAL PATENT APPLICATION (PTO-152) which giv	nitted. Note the attached EXAI res reason(s) why the oath or o	MINER'S AMENDMENT o declaration is deficient.	r NOTICE OF	
5. CORRECTED DRAWINGS ( as "replacement sheets") mu	st be submitted.			
(a) ☐ including changes required by the Notice of Draftsper		( PTO-948) attached		
1)  hereto or 2)  to Paper No./Mail Date				
(b) including changes required by the attached Examiner Paper No./Mail Date				
Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in	1.84(c)) should be written on the the header according to 37 CFR	e drawings in the front (not	the back) of	
<ol> <li>DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT</li> </ol>	osit of BIOLOGICAL MATE	RIAL must be submitted	d. Note the	
Attachment(s)  I. ⊠ Notice of References Cited (PTO-892)	5 Dagger of 6	15 / / 1   11   11		
2. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)		nformal Patent Application		
B. ☑ Information Disclosure Statements (PTO/SB/08),	Paper No./M	6. ☐ Interview Summary (PTO-413),  Paper No./Mail Date		
Paper No./Mail Date	7. Examiner's Amendment/Comment			
I. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material		8. X Examiner's Statement of Reasons for Allowance		
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## **DETAILED ACTION**

## Allowable Subject Matter

- 1. Claims 1-36, 38, 39, 41, 45-48, 50, 51 and 55-57 are allowed.
- 2. The following is an examiner's statement of reasons for allowance: Reasons for allowance of claims 15-35 are given in the previous office action. The outstanding provisional double patenting rejection has been withdrawn because it is the only remaining rejection of claims 1-8, 12, 13 and 36-39, which are allowable because the prior art fails to disclose the arrangement wherein both the substrate and intermediate porous layers are metal, as defined in the specification, or wherein the first porous layer and solid layer are both made of a hydrogen permeable material. The closest prior art discloses ceramic or metal oxide intermediate layers. Independent claims 36, 47, 51 and 56 are also allowable because the prior art fails to suggest the arrangement including a first porous layer and solid layer both made of a hydrogen permeable material.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference to Oyama et al. (2003/0222015) discloses a layered hydrogen selective membrane.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161. The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Frank M. Lawrence Primary Examiner Art Unit 1724

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trank faurence 9-20-06